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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,102	02/04/2004	Paul V. Cooper	23438.00001	3968

7590 10/11/2007  
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EXAMINER
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KASTLER, SCOTT R

ART UNIT	PAPER NUMBER
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1793

MAIL DATE	DELIVERY MODE
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10/11/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/773,102	<b>Applicant(s)</b> COOPER, PAUL V.	
	<b>Examiner</b> Scott Kastler	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 and 24-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-22 and 24-32 is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/6/2007 has been entered.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Russian'401. Russian'401 teaches a device including an inlet structure (2) with a plurality of holes (6) through which molten metal can pass, and a displacement structure comprising rotor blades (4) attached to the inlet structure, where in use, the inlet structure and displacement structure rotate together, and the rotors acting to direct portions of the melt both downwardly and outwardly (since this limitation allows for the direction of any portion of the melt in these directions and some portion of the melt would be directed in this manner) thereby showing all aspects of the above claims since the manner or method of use of the claimed device (in a molten metal pump) cannot be relied upon to fairly further limit claims to the device itself. see MPEP 2114.

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Claims 1 and 4-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Duenkelmann'060. Duenkelmann'060 teaches a structure which acts as a molten metal pump (see col. 2 lines 49-51), including an inlet structure of a plurality of holes or openings and rotor blades acting as displacement structures connected thereto each made of graphite or other refractory ceramics (see col. 1 line 63 to col. 2 line 16 for example) where there can be 3 inlets and rotor blades and the rotors acting to direct portions of the melt both downwardly and outwardly (since this limitation allows for the direction of any portion of the melt in these directions and some portion of the melt would be directed in this manner), where the device includes a threaded connective portion (4) thereby showing all aspects of the above claims.

Claims 1, 2 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Scheffler'133. Scheffler'133 teaches a molten metal pump including an inlet structure made of refractory ceramic (16) and attached displacement structures comprising rotor blades (41) which rotate along with the inlet structure, the rotors acting to direct portions of the melt both downwardly and outwardly (since this limitation allows for the direction of any portion of the melt in these directions and some portion of the melt would be directed in this manner) thereby showing all aspects of the above claims.

Claims 1-4 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Rawson et al'383. Rawson et al'383 teaches a molten metal pump (in the figure) including a motor (11), a pump base with a pump chamber (29) and discharge (30) in the form of a tangential molten metal conduit connected to the chamber (29) without cement, and a device including an inlet (20) with an opening, and a connected displacement structure (22, 24, 24A) including a rotor blade, the rotor acting to direct portions of the melt both downwardly and outwardly (since this

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limitation allows for the direction of any portion of the melt in these directions and some portion of the melt would be directed in this manner) where the inlet structure is made of ceramic, and including a bearing surface (13) comprising one or more grooves, and a drive shaft (12) connecting the motor (11) to the device (20) allowing the inlet structure (20) and displacement device (22,24) to rotate together, thereby showing all aspects of the above claims.

***Allowable Subject Matter***

Claims 12-22 and 24-32 are allowed.

***Response to Arguments***

Applicant's arguments filed on 9/6/2007 have been fully considered but they are not persuasive. Applicant's argument that claims 1-11 are now in condition for allowance since they now contain the allowable subject matter from claim 23 is not persuasive because as stated in the previous office action mailed on 3/6/2007, this claim is considered allowable if rewritten in independent form and containing all of the limitations of the claims (12 and 18) from which it depends. With respect to the above claims 1-11 these claims do not contain the limitations of independent claim 12.

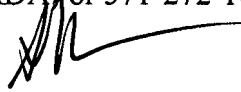
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Kastler whose telephone number is (571) 272-1243. The examiner can normally be reached on Monday through Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Scott Kastler  
Primary Examiner  
Art Unit 1793

sk